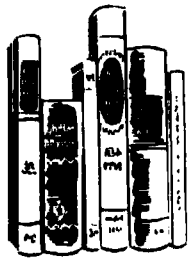


books reviewed

7th High-Speed Photography Congress Proceedings

Kurzzeitphotographie, Proceedings of the 7th International Congress on High-Speed Photography, Zurich, Switzerland, September 12–18, 1965. Ed., Prof. Dr. Othmar Helwich. Published (1967) by Verlag Dr. Othmar Helwich, D-61 Darmstadt, Hoffmannstr. 59, Germany. 640 pp.

This book is a "must" for all those who use high-speed photography in research, development and engineering, and others who have special interests in that field. Professor Helwich has given considerable attention to making this book useful to people who are not trilingual, as well as to those who read English, German and French, the languages of the Congress.

Ninety-eight papers submitted to the 7th Congress are published in the language in which they were originally presented and many summaries are included in the three languages. A trilingual subject index is useful for quick reference. Sixty-eight of the papers are in English.

Titles of the technical papers in the *Proceedings* appear in the *Journal* (Vol. 75, April 1966, pp. 349–372) together with a general review of the Congress.

Subjects covered and the number of papers on each subject appear below:

Light Sources	5
Cameras	13
Explosives, Shock Waves and Plasma Physics	10
Physical Phenomena	9
Medicine	3
X-Ray	7
Technology	20
Auxiliary Equipment	10
Techniques and Applications	16

Five invited papers cover xenon flashlamps, techniques and plasma studies by lasers, the physics involved and the properties of latent images in high-speed photography.

A notable change in the trend of subject content from previous *Proceedings* is the increase in the number of papers on lasers as research tools. The eight papers on laser usage might well have been grouped as a Section. The papers covered the use of lasers in plasma research, frequency doubling, front surface lighting of fast events, interferometry, spectroscopy and schlieren applications, laser framing cameras and the principles involved in time-resolved laser spectroscopy within the nanosecond region. Further research and development in these and other laser uses is encouraged by these papers.

Various concepts for miniaturization in high-speed photographic systems introduced another area of future development that is a requirement in many phases of the science. Improvements such as higher resolution, faster emulsions and readout systems for smaller formats will be an outgrowth of the field of camera miniaturization.

A need for further development in internationally standardized terminology are apparent. Readers of the *Proceedings* will discover several examples of this need due to translations in the different languages and should bear this in mind in applying corrective interpretation. Editors of future *Proceedings* would certainly welcome standardized definitions in several languages. This should be a project for our international participants.

Kurzzeitphotographie is dedicated to Dr. Hubert Schardin who became ill during the Congress and died shortly after. A biographical sketch by his colleague, K. Vollrath, is included in the *Proceedings*. Other interesting items in the book include remarks by various speakers at the opening of the Congress and a brief résumé of the organization and facilities of the meeting in Zurich by K. Pfister, Congress Secretary.

All in all, this book contains a wealth of information on a notable Congress.—*Max Beard*, Naval Ordnance Laboratory, Silver Spring, Md. 20903.

Behind the Screen

The History and Techniques of the Motion Picture

By Kenneth Macgowan. Published (1965) by Delacorte Press, 750 Third Ave., New York, N.Y. 10017. 528 + xv pp. Index. Illus. 6½ by 9 in. Cloth bound. Price $12.50. (Also in paperback, Delta Books, $2.95.)

This well-written book by the distinguished Hollywood director and Chairman Emeritus (at the time of his death in 1963) of the Department of Theater Arts of UCLA, Kenneth Macgowan, is an extremely interesting account of the growth of the motion picture from its beginning in the 1890's to about 1960. The author's lifelong interest in the "movies" paralleled a strong interest in drama which began, as he points out on page 500, when he was 14 and he discovered " . . . the fifty-cent gallery of the legitimate theater in St. Louis . . . . Every Saturday of the season, through my four years in high school, I saw a play." Besides this deep-rooted interest in drama, he also must have had a great concern about history, as shown by the many sections of his book that are devoted to the subject.

In the preface, he is quick to point out that this book is "not a product of original research," but mainly an "assemblage and sifting of published and sometimes contradictory facts," and of his experiences "as a motion picture critic from 1914 to 1918, as a film producer in Hollywood from 1932 to 1946, and as a coordinator of film studies at UCLA from 1947 to 1956." He also acknowledges the able assistance of Robert G. Dickson, a special student at UCLA as well as many other individuals and organizations who gave him much useful information.

The book is divided into 10 sections with the number of chapters in parentheses as follows: A Mass Art for a Mass Audience (2); Many Inventions and Inventors (2); The Silent Era Begins (4); The Silent Film Takes Shape (6); The Film of the Nineteen Twenties (4); The Coming of Sound (2); Studio Organization (3); The Problem of Censorship (2); The Masters of Film-Making (4); and The Picture Reshaped (3).

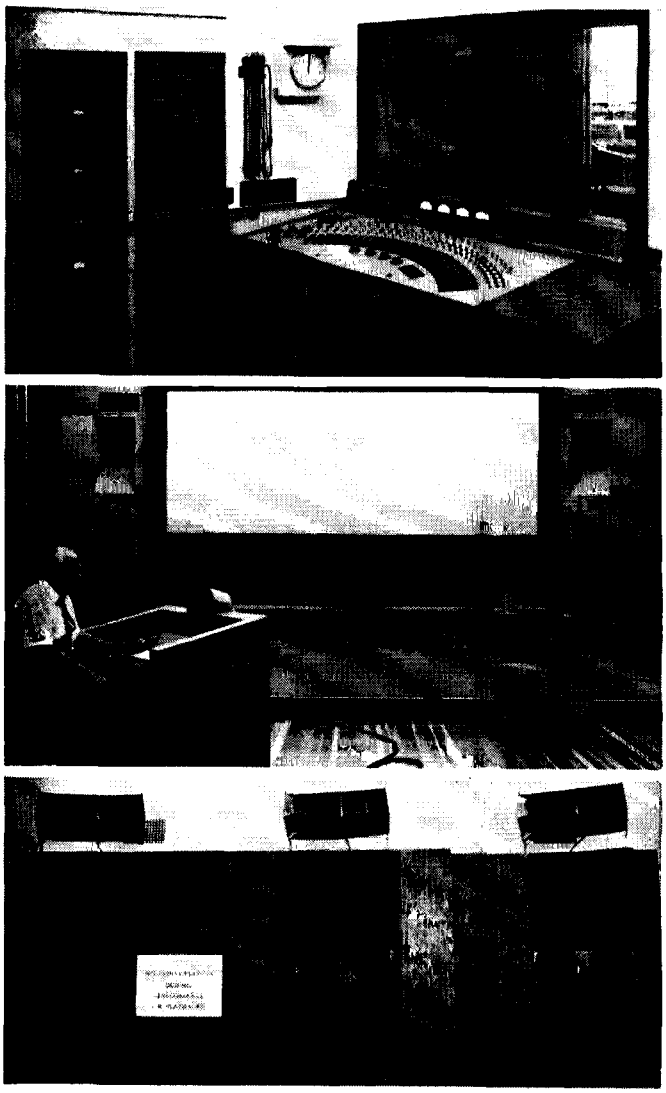
Perhaps the book's greatest contribution is the clear perspective that it gives the reader of the various periods of growth, silent to sound, color, stereo picture and sound, magnetic sound and picture; and finally the significant changes in shape of the film and picture and the marriage with television. In the first chapter the author states, "The motion picture is, obviously enough, the only art created and developed wholly within historical times." Television historians might, however, challenge this statement.

Throughout the book the author constantly explodes the myth of discovery of something new having been created each time a technical advance is made. The drive-in or outdoor theater began to be developed shortly after World War II but he points out (p. 9) that before 1910 there were "airdromes." Big screens such as those used for Cinerama (1952) and CinemaScope (1953) were used in France by Grimoin-Sanson about 1900 at the Paris Exposition. He locked together ten 70mm cameras and projected the film with ten projectors on a circular screen 330 ft long by 30 ft high (p. 466). His process was called Cinéorama.

In the second chapter, "Time and the Movies," he makes a prophetic comment, "The organization of time is the essence of the motion picture art." Painters work in two dimensions, sculptors have three but the film artist has a fourth — time. Many techniques have been developed by the cameraman and the printing and editing laboratories to use this element effectively. Here he coins a new word, "filmic," an adjective that he says describes clearly the art of the cinematographer.

Those interested in history of the motion picture will find Chapters 3 through 8 fascinating and informative. After listing nine basic steps that led to the motion picture of today, the author takes up, one by one, these elements and analyzes their relative significance. While doing this he discusses the inventions of several precursors of the motion picture. These include Fitton's spinning disk (about 1823); Plateau's (Brussels) and Stampher's (Vienna) slotted cylinder which was rotated before a mirror and the operator saw apparent movement of a series of figures drawn on the inner side of the cylinder (about 1832); the Zoetrope of Horner (1834); and the first lantern projector showing moving figures which was invented by an Austrian army officer, Uchatius, in 1853. All these and many other devices used sketches or drawings but not photography.

Disney's Magic World of Sound... from Altec.



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Photography as we know it today is credited by the author and many other historians as having begun with discoveries and inventions of the Englishman, W. H. Fox-Talbot in the 1830's. In another form that did not prove as practical it was invented by the Frenchman, L. M. Daguerre in 1837. Several inventors between 1860 and 1870 used a series of photographs showing human figures in motion and by mounting these in various ways created the illusion of motion. The last part of Chapter 3 is devoted to the amazing Muybridge whose thousands of photographs of the human figure and animals in motion still constitute a classic record but they were primarily attempts to analyze movement and *not* motion pictures. However, with the aid of a projecting device called a "Zoögyroscope" he demonstrated the principle of motion pictures in San Francisco in 1880.

Between 1880 and 1890, as discussed in Chapter 4, came the era of multiple cameras and multiple lenses, the majority of the inventors being concerned solely with motion analysis. Of this group, one of the most distinguished for the practical efficiency of his devices was the French physiologist, J. E. Marey. In 1882 he photographed birds in flight with his photo-gun. He showed his results to Edison in 1889 and aroused his interest.

The work of LePrince, Friese-Green, the Skladanowsky brothers and Messter is described briefly and their relative accomplishments appraised. He gives great credit to Edison and his assistant, Dickson, for their ingenuity in building a camera capable of making a rapid sequence of pictures for examination in a "peep-show" device called a Kinetoscope. This advance was made possible in no small part by the invention of long lengths of flexible film by Eastman (1889).

Several inventors made unprofitable and impractical attempts at projection devices but it remained for Jenkins and Armat, especially the latter, to design a practical projector for 35mm film. While the author states, "What each partner contributed is still in dispute," this reviewer considers that Armat's two basic patents (U.S. Pat. 578,185 and 673,992) for his Vitascope described the fundamentals and have long stood the test of time. This device was shown to Edison by Armat and was used in one of the first showings of motion pictures in a theater, Koster & Bial's Music Hall, New York, April 23, 1896.

The important original contributions of the French brothers, Louis and August Lumière are described. They built a combined camera, printer and projector called the Cinematographe which they first used successfully in 1895. The work of B. Acres and R. W. Paul in England is dealt with all too briefly, especially that of the latter, who in this reviewer's opinion made several important devices that qualify him as one of the distinguished motion-picture pioneers.

In Chapter 5, "The Screen Turns from Science to Storytelling," the author points out that between 1896 and 1906 as public interest grew in motion pictures, Edison and Dickson, the Lumières, Paul, Urban and the great French genius, G. Méliès used the medium more and more to tell a story rather than merely to record. Lumière's cameraman in 1896 photographed the coronation of Czar Nicholas, making one of the first newsreels.

Further details of great interest on the contributions of Méliès are given in Chapter 6. This well-organized discussion represents a valuable documentation of this man's significant contributions to the growth of the motion picture as a medium of entertainment. The author concludes that Méliès' three most important contributions are: he increased the length of film used to tell a story; he invented several optical effects to enhance dramatic interest; and he introduced imaginative storytelling. He failed in one important way: all his pictures were shot from fixed camera positions. The British used moving cameras and Edison used the close-up; both are effective techniques.

Two of the very useful and interesting attributes of the book are the large number of illustrations (drawings, photographs, reproductions of early film samples, patents, news clippings, etc.) that amplify the text (over 200) and, secondly, the many references by name and date to motion-picture films. In chapter 7, for example, films made by Porter, Bitzer, and Blackton are discussed. Macgowan considers Porter's *Life of an American Fireman* (1902–03) daringly conceived and his *Great Train Robbery* (1903) the first important Western. During this period, 1902–1912, several film companies were formed that played an important role in the early growth of the motion picture. Some of them were Vitagraph, Selig, Essenay, Edison, Biograph and Pathe. D. W.

Griffith began his meteoric career with Biograph at about 1907.

The book gives relatively little information about film laboratories or processing techniques but quite a lot of space is devoted to studio design and camera and lighting techniques. Historical aspects of these latter elements of production are dealt with in Chapter 8 which also covers the establishment of the first theaters. The author credits public showings by Latham in New York in August, 1895, by Jenkins and Armat in Atlanta in September, 1895, and by the Lumières in December, 1895 as among the earliest public showings of motion pictures. In 1896, Lumières rented a theater in Paris, and called it Cinema Saint Denis; it became the oldest continuously operating movie house in the world. The "Black Maria" studio of Edison and Dickson built in 1893 was probably the world's first studio.

An entire chapter (9) is devoted to the great actor-director D. W. Griffith whose foresight, skill and ingenuity created lasting values for the art of the motion picture. He used moving cameras very effectively, also close-ups and intercutting of scenes for strong dramatic effects. Between 1908 and 1913, he produced more than 450 one- and two-reel films. Then he began to make longer pictures and continued directing until 1931. He used music as a background to develop the mood of his actors and also believed strongly in its use by orchestras when his silent pictures were projected. California, because of its sunshine and widely different types of country (the sea, the desert, the mountains), became an important location for motion-picture production about 1908. Outdoor stages were used for several years for indoor as well as outdoor scenes. Names such as Zukor (Paramount), Laemmle (Universal), Fox and Warner Brothers began to appear in the lists of producers.

The feature film, as defined in Chapter 10, is one comprising five or more reels shown at one time, one after the other. J. S. Blackton is given credit for making the first feature film, *The Life of Moses*, in 1909. Zukor coined the phrase, "Famous Players in Famous Plays," and organized the Famous Players Film Company. *The Prisoner of Zenda* (1913) was the first Famous Players film; it starred James K. Hackett. In that same year, Zukor cast Mary Pickford in her first Famous Players film, *A Good Little Devil*. The feature film, *The Squaw Man* was one of the first pictures made in Hollywood; it was shot in a barn at Vine Street and Selma Avenue. About this time DeMille, Lasky and Goldwyn began producing pictures on the west coast.

In 1915, the epic picture, *The Birth of a Nation*, was released and it added greatly to the reputation of its director, D. W. Griffith.* That same year the Triangle Film Corporation was formed; in it Griffith, Ince and Sennett each headed a producing unit. Then began the lush era of high salaries, hiring of noted stage stars and purchasing of successful stage plays. Many original scenarios were also written by capable writers. Many of the big pictures failed to make money and some studios were forced to close their doors. The rise of Chaplin as a comedian began about this time. All these events are covered interestingly in Chapter 11. The discussion of these boom and bust years continues in Chapter 12. There were 687 features made in 1917 and 841 in 1918. Distributing organizations were set up and theaters built. Serial stories became very popular and these were the predecessors of the "soap-operas" of radio and television. Great stars such as Hart, Mix and Fairbanks and others began their careers during this period.

The author explains in Chapter 13, "The Lure of the Primitive," how two styles of story telling developed early in the century, the narrative and the dramatic. There were many new skills devised for motion pictures around 1910 in writing, directing, producing and editing that had a pronounced effect on the growth of the screen. Some of these innovations originated abroad especially in Germany and Sweden as the author explains in more detail in Chapter 15. The whole of Chapter 14 is devoted to the art of Chaplin and of lesser comics. He characterizes Chaplin as "the greatest figure of the silent films," and a master of pathos.

Production techniques used by the Russian film-makers are discussed in Chapter 16. Their skill was developed to a high degree by working in real buildings on location and with actors drawn from the people

* This reviewer saw this film in San Francisco in the summer of 1915 and was much impressed.

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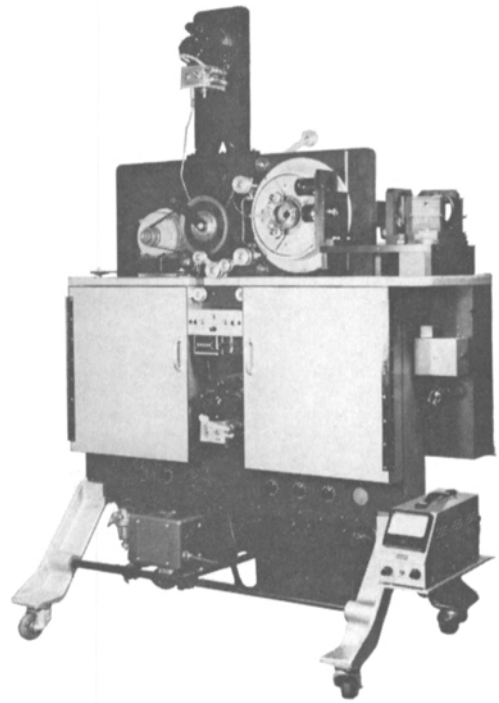

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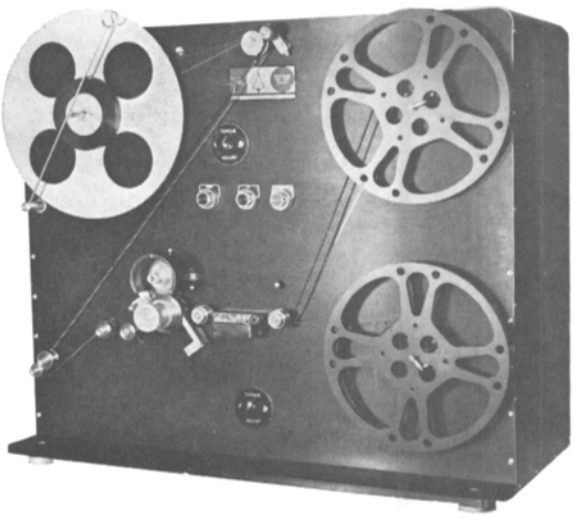

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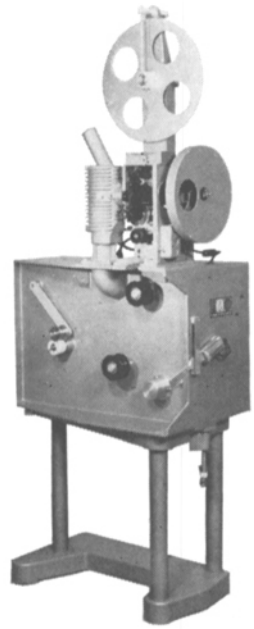

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at the location. Russian films emphasized propaganda except those made as educational films. Montage effects were used quite extensively until sound pictures began to be made. At this point in his book, it would have added interest if the author had included some information on film techniques of India, Japan and possibly South America.

The years 1917 to 1927 Macgowan calls the gilded decade of Hollywood. The star system grew rapidly, great spectacle pictures were made, and huge salaries were paid, some of which are listed on page 247. This was the era of theater chains, and the building of large theaters one of which, the Roxy in New York, seated 6200 persons. Hollywood ruled the screen world, provided more films and earned more money than any other production area. For a number of years after the war, the British and French films, according to Macgowan, were mediocre. Some directors and actors came to America to work here. The results of these changes are described in Chapters 17 and 18. Typical production costs are analyzed.

Chapters 19 and 20 are devoted to the tremendous change that took place in techniques, directing, editing and exhibiting when sound became an integral part of the motion picture late in the twenties. Many devices for recording sound both mechanically and optically had been worked on long before it finally was used successfully. The author reviews these methods and analyzes their significance. He points out that it was fortunate for Hollywood that sound was accepted before the market crash of 1929 or its introduction might have been held up for a decade or more. The contributions of General Electric, Bell Laboratories, Western Electric, Westinghouse and other firms were very significant. Such engineers as Case, Sponable, de Forest and others played an important role in this development.

From 1930 to the present day, technical advances were largely stimulated by two fundamental events: (1) the depression in the thirties and (2) the very rapid growth of home television after World War II. Experiments with wide film, new color films, some attempts at stereo motion pictures and improved sound came in the thirties. It is unfortunate that the author almost completely fails to evaluate the great advances in black-and-white and in color film emulsions that took place between 1930 and 1960. His account of how a major studio works is well written and informative (Chapter 21). Other interesting chapters cover the work of the screen writer (Chapter 26), the director (Chapter 27), and the cutter or editor (Chapter 28). His chapter on "The Cameraman's Contribution" is one of the most interesting in the book as it clearly defines the sequence of operations of this important phase of production (Chapter 29).

Great changes in production occurred in the fifties when stars and directors began to set up their own companies. Not long afterward the loss at the boxoffice from the growing popularity of television stimulated further modifications in film production. These developments are dealt with quite clearly in Chapters 22 and 23. The final three chapters (30, 31 and 32) contain a wealth of data on the many types of wide film that were produced and the novel effects that were possible with such processes as Cinerama, CinemaScope, Todd-AO and others. Finally came the wedding of motion pictures and television and extensive programs of film production for both TV and motion pictures resulted. Two chapters, 24 and 25 are devoted to censorship problems.

The inclusion of tables containing quotations from famous writers and other data add a pleasant touch to the book. An excellent index provides ready access to most subjects covered. Some specific reference to SMPTE historical papers would have been a useful addition, especially those fundamental articles on sound, film, stereo and color. There are very few typographical errors, those noted being on pp. 107, line 34; p. 185, line 24; and p. 280, line 8. On page 410, it states that " . . . sound came in at the end of the thirties . . . ." Obviously this should have read "twenties."

Kenneth Macgowan has left us a treasure house of information on the motion picture that will be a useful reference for generations.—*Glenn E. Matthews*, 55 Stoneham Rd., Rochester, N.Y. 14625.

Archaeology of the Cinema

By C. W. Ceram. Illustrations Editor, Olive Cook. Translated by Richard Winston. Published (1965) by Harcourt, Brace & World, Inc., 717 Third Ave., New York, N.Y. 10017. 264 pp., 293 illus., bibliography, index, 6¾ by 9 in. Price $6.50.

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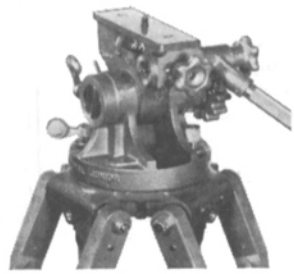

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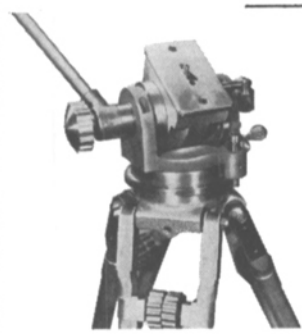

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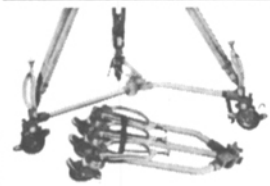

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gracefully written text, but its greatest value lies in its rather full and well-printed picture collection, and for this picture collection many may want to own the volume.

C. W. Ceram (or Kurt W. Marek — his publishers always explain that Ceram is Marek's pen name, so why use it?) is a professional journalist and writer whose greatest successes have been *The Secret of the Hittites* and *Gods, Graves, and Scholars*. Hence *Archaeology of the Cinema*. His publisher may have devised the title for commercial purposes, but Mr. Ceram liked it well enough to say in his preface, "I did my first writing on the archaeology of the cinema as long ago as 1936." He was then at the age of 21 and he interviewed Max Skladanowsky, Oskar Messter and Louis Lumière. Perhaps he dug these gentlemen out of relative obscurity, but certainly not out of the ground. As for his other spade work, he has done research in literary and film archives in Germany, London, Paris, New York and Hollywood, but his story is capsulated and his critical insights unstartling.

Mr. Ceram's text occupies only 51 of the book's pages, in widely leaded lines of large type, while notes take 22 more pages. Two-thirds of the pages are devoted to the picture collection, with informative captions, possibly written by the illustrations editor, Olive Cook, who has written elsewhere on cinematography. The result is a superior work of photo-journalism, sounder and not so glib as it would have been had it appeared in a picture magazine; but for a more satisfying account of the genesis of motion pictures, the serious student may turn to *Behind the Screen, The History and Techniques of the Motion Picture*, by the late Kenneth MacGowan (see review above) and other reliable texts.—*Edit.*

Motion Pictures from the Library of Congress Paper Print Collection — 1894–1912

By Kemp R. Niver (Ed. Bebe Bergsten). Published (1967) by University of California Press, Berkeley, Calif. 94720. 402 + xxii pp. 8½ by 11 in. Price $27.50.

"Every now and then, some part of the great Sargasso Sea of scholarship boils over with the publication of a really basic new research study." This statement by Raymond Fielding, who wrote the Introduction to this impressive book almost obviates the need for any further review or evaluation of this work, especially when he goes on to say: "It is exhaustive, detailed, authoritative and basic and its data contradict a great many of the assumptions upon which we have based our early film histories. . . . It is an index of films produced throughout the world between 1894 and 1912, paper-positive prints of which were deposited with the Library of Congress during those years for copyright purposes. Altogether, some 3,000 titles are listed here, representing more than two million linear feet of film — incunabula of the cinema."

Kemp R. Niver, the author of this monumental work, developed a process (called Renovare) of restoring the paper prints and putting them onto projectable film stock, thus saving for historians and students of cinema precious material that otherwise would have been lost forever. His work has been supported by an appropriation from Academy of Motion Picture Arts and Sciences and later under an Act of Congress. Mr. Niver will be remembered by readers of the *Journal* as the author of "Paper Prints of Early Motion Pictures," in the December 1966 issue of the *Journal* (pp. 1186–1187).

The index of films includes the title of the film, date of copyright, producer and (where possible) the cast, and also a brief synopsis of each film which, the author says, "in no case was . . . intended as a critique of the film. The synopsis represents only what we actually saw in the film and not what others have said the film contained." The films are cross-indexed under 12 categories: Advertising, Cartoons, Comedy, Comedy (Another Version), Documentary, Drama, Medical, Newsreels, Peep Shows, Religious, Reproductions, Vaudeville.

It is surprising how many newsreels record turn-of-the-century events, such as movies of the Spanish-American War (*Admiral Dewey Landing at Gibralter* (1899)); McKinley's Funeral Entering West Lawn Cemetery, Canton, Ohio (1901); Searching Ruins on Broadway, Galveston, for Dead Bodies (1900); and many others which would have been irrevocably lost without Mr. Niver's efforts.

One interesting sidelight is that only one medical film is listed. According to the author, "The curious fact that only one film appears in the Medical category, although many copyright applications were filed for medical films, can be attributed to possible causes: either no paper prints were sent in, or none survives." The medical film that survives was copyrighted in 1905 and deals with epileptic seizures. Patients were placed against a background of dark canvas and their seizures were photographed.

While the book is intended mainly for scholars and historians, there is much in it to delight the casual reader with only a layman's interest in cinema, history or Americana. While it is impossible, of course, to present anything like an adequate sampling of the 3,000 titles and synopses, one picked almost at random is interesting, not only because of the glimpse of society's approach in the early 1900's to the problems of senior citizenship and poverty, but also because it gives a hint of one of the many difficulties that Mr. Niver and his associates encountered in the identification of the paper prints.

The film, *Over the Hills to the Poorhouse* (copyrighted, 1908), "tells the story of an old woman who is saved from the rigors of a scrubbing board and washtub in the poorhouse by the timely arrival of a wealthy son. The events that lead up to this climax start after the old woman has divided her money between her children. She then goes to live with one son. There is a disagreement over what her daughter-in-law feels is undue influence over the granddaughter. Grandmother is banished from the house and ends up in a squalid room, from which she is ousted by a cruel landlord for nonpayment of rent. There is a scene showing her trudging down the road and stopping in front of a sign reading 'To the Poorhouse!' The synopsis notes that "The film bears the title *At the French Ball* but has been identified as *Over the Hills to the Poorhouse*."

It is a temptation to go on quoting these beautiful little vignettes, but a temptation that must be resisted. However, one more, especially intriguing, will give some idea of the use of special effects in 1902 in the film,

The Barber's Queer Customer: "The action begins on the set of a barber shop. A man comes in, sits down, and the proprietor starts to lather his shaving brush. As he turns to his customer, the customer's face, by the use of stop-action photography, is changed into that of an owl and from then until the end of the film when the barber throws him out, the face continues to change into various animals, such as a monkey and so forth." (This same idea was used in a television commercial for breakfast food, when the faces of daughter, son and husband at the breakfast table suddenly changed to various birds and animals.)

While the tremendous contribution of Mr. Niver and his associates will be most appreciated by scholars and students, it is by no means a ponderous work for specialists only. The average reader will find much that is not only significant, but uproariously funny, and also much that is surprisingly familiar in terms of story and technique. While it would be frivolous to speak of this book as a "conversation piece" it will certainly be read and enjoyed by many literate persons as well as finding its way to the reference shelves of historians.—*Edit.*

What is Cinema

By André Bazin (translated by Hugh Gray). Published (1967) by University of California Press, Berkeley, Calif. 94720. 183 + vi pp. 5¼ by 8¼ in. Price $5.75.

The book consists of 15 essays on various aspects of the art of cinema by the famous French writer and film critic, André Bazin. Published posthumously, the essays were selected and translated by Hugh Gray, who is Professor of Theater Arts at the University of California Los Angeles. There is a Foreword by Jean Renoir in which he states: "There is no doubt about the influence that Bazin will have in the years to come. His writings will survive even if the cinema does not. Perhaps future generations will only know of its existence through his writings." Although this predication may seem hyperbolic to most readers there can be no doubt of the soundness and originality of the criticism nor of the clarity and elegance of the writing — which is also a tribute to the translator as well as to the author.

An especially interesting essay is "The Evolution of the Language of Cinema" in which the author discusses "The Evolution of Editing Since the Advent of Sound." In this he notes that, "around 1938 films were edited, almost without exception, according to the same principle. The story was unfolded in a series of set-ups numbering as a rule about 600. The characteristic procedure was by shot-reverse-shot, that is to say, in a dialogue scene, the camera followed the order of the text, alternating the character shown with each speech. It was this fashion of editing, so admirably suited for the best films made between 1930 and 1939, that was challenged by the shot in depth introduced by Orsen Welles and William Wyler. *Citizen Kane* can never be too highly praised. Thanks to the depth of field, whole scenes are covered in one take, the camera remaining motionless."

Although certain respected critics, notably Jean Mitry, have, at various times offered some disagreement to a few of the tenets held by Mr. Bazin, there is no question concerning his stature as a critic and man of letters and of his enduring influence on the development of the art of motion picture.—*Edit.*

Thesaurus of Photographic Science & Engineering Terms

Edited and published by Society of Photographic Scientists and Engineers. Produced (1967) for SPSE by Engineering Index Inc., 345 E. 47 St., New York, N.Y. 10017. 134 pp. Paperbound. 8 by 10½ in. Price $15.00.

The intent of this *Thesaurus* is to "bridge differences in education, experience and linguistic facility among originators, indexers, retrievers and future users of the *Abstracts of Photographic Science and Engineering Literature*," as stated in the Introduction. It contains descriptors used or available as APSE indexing terms. Also included are terms from photographic jargon which are restricted from indexing use because of scope or ambiguity. Although the terms are not defined, certain terms are followed by a parenthetical scope note to limit the scope of its use. For example, under the term "Black Printer" is the note "(Color separation negative or positive, or printing plate used in printing neutral colorants commonly used in photomechanical color printing)." Terms are also related to their corresponding broader, narrower and related terms. For example, under "Polarographic Analysis" the broader term is "Analysis" and related terms are "Chemical Analysis" and "Polarography."

The advantage of the searcher, as explained in the Introduction is that he "can form his question at any generic level and be led to a selection of useful descriptors." Although intended specifically for users of APSE, the *Thesaurus* would be useful to anyone interested in the field of photographic science.

Compilation of the *Thesaurus* was under the direction of T. Howard James, at that time Chairman of APSE Editorial Board. Guidance was also provided by Deane R. White, Chairman of APSE Publication Board. Others giving help and encouragement were Louis Rosenblum, SPSE Editorial Vice-President, and Richard W. Swenson, former Chairman of APSE Publication Board. The idea of the project was conceived by Henry M. Lester, first Editor of APSE, and developed by Lenore H. Hess, former Managing Editor.—*Edit.*